

ATTACHMENT A

Revise the Technical Specification pages as follows:

Remove

3.3-2

Insert

3.3-2

- d. At or above an RCS temperature of 350°F, two residual heat removal pumps are operable.
- e. At or above an RCS temperature of 350°F, two residual heat removal heat exchangers are operable.
- f. At the conditions required in a through e above, all valves, interlocks and piping associated with the above components which are required to function during accident conditions are operable.
- g. At or above an RCS temperature of 350°F, A.C. power shall be removed from the following valves with the valves in the open position: safety injection cold leg injection valves 878B and D. A.C. power shall be removed from safety injection hot leg injection valves 878A and C with the valves closed. D.C. control power shall be removed from refueling water storage tank delivery valves 896A, 896B and 856 with the valves open.
- h. At or above an RCS temperature of 350°F, check valves 853A, 853B, 867A, 867B, 878G, and 878J shall be operable with less than 5.0 gpm leakage each. The leakage requirements of Technical Specification 3.1.5.2.1 are still applicable.
- i. Above a reactor coolant system pressure of 1600 psig, A.C. power shall be removed from accumulator isolation valves 841 and 865 with the valves open.

~~NRC Order dated~~
~~April 20, 1981~~

~~Amendment No. 11, 24~~
3.3-2 Proposed

Attachment B

In the event of a Loss of Coolant Accident (LOCA) when the Reactor Coolant System (RCS) temperature is at or above 350°F, Motor Operated Valve (MOV) 856 must be in the open position to ensure that water can be immediately delivered from the Refueling Water Storage Tank (RWST) to the reactor vessel upon initiation of a Safety Injection (SI) signal. There is currently a Technical Specification requirement to maintain MOV-856 open by removing AC power from the valve motor when RCS temperature is above 350°F to prevent inadvertent or spurious closure. This is ensured by locking open the breaker which provides 480 VAC power to the valve motor. The current Tech. Spec. was instituted based upon a letter from L. D. White, Jr., RG&E to Bernard C. Rusche, NRC, dated April 1, 1975.

The two conditions when MOV-856 must be closed are: 1) to isolate the RWST from the RCS when the reactor is shutdown with the Residual Heat Removal System (RHRS) in operation and 2) to isolate the RWST from the containment sump "B" prior to switchover of the RHRS to the sump recirculation phase of a LOCA.

Presently, the close function of MOV-856 cannot be performed completely from the control room. An entry must first be made into the controlled auxiliary building to unlock and close the breaker to restore power to the valve.

A plant modification is being prepared to enable the operation of MOV-856 from the Control Room.

The modification involves the installation of a key operated switch in the control room that will remove and lock open the 125 VDC control power to the valve actuator. By requiring the actuation of the key switch in conjunction with the existing control switch, this modification will maintain the existing assurance of proper valve alignment.

Provisions for use of key operated switches which remove DC control power have been applied to other safety related valves at R. E. Ginna. The refueling water storage tank outlet valves MOV-896A and B to the high head safety injection pumps and containment spray pumps have the same functional requirements as MOV-856. The MOV-896A and B valves were provided with key switches in 1975 and NRC approval was provided in the NRC SER to Am. 7 of the R. E. Ginna Provisional Operating License, dated May 14, 1975.

Table 1 depicts the specific Technical Specification change.

In accordance with 10CFR50.91, this change to the Technical Specification has been evaluated to determine if the operation of the facility in accordance with the proposed amendment would:

1. involve a significant increase in the probability or consequences of an accident previously evaluated; or
2. create the possibility of a new or different kind of accident from any accident previously evaluated; or

3. involve a significant reduction in the margin of safety.

The new configuration will ensure the correct valve position during normal power operation and enable valve control during or after a LOCA from the control room provided that 480 VAC power to the valve motor is intact.

Post LOCA Emergency Procedures require that, when the RWST level reaches 28%, RHR pumps are stopped and valves realigned so that the suction source of water for the RHR pumps is switched from the RWST (by closing MOV-856) to the containment sump "B". This switchover procedure, which requires MOV-856 to be closed, is initiated to isolate the RWST from any potentially high radioactive source of water in the containment sump "B" released from the RCS following a LOCA.

Presently, closing MOV-856 requires entry into the auxiliary building to unlock and close the breaker to restore the AC power to the motor. This action requires more time and personnel than if the valve could be completely manipulated from the control room.

Procedures require the RHR pump to be restarted following valve realignment but not before RWST level has further decreased to 15% to ensure adequate RHR pump NPSH. In the limiting case of a large break LOCA, an estimated time for the RWST level to decrease from 28% to 15% could be on the order of 10 minutes. This would depend on the RCS and containment pressure and the number of Emergency Core Cooling System (ECCS) pumps in operation. Consequently, time is limited for personnel to restore power to the valve with the present valve control configuration. The ability to operate the valve from the control room would provide additional time for operators during the switchover to control plant conditions. Therefore, this modification will significantly increase the operability of the plant when time is critical.

In addition, the risk of radiological hazards to personnel during such an evolution is potentially high. By eliminating the need to enter a controlled area to restore power to MOV-856 it will reduce the radiological risk to personnel.

The spurious operation of MOV-856 due to shorted contacts in the control or key switches, bridging of terminals and/or cable shorting as a result of fire or penetration has been analyzed. This modification will remove the DC control power with a key switch at the Main Control Board (MCB). By utilizing the existing and additional cables from the motor control center to the MCB, the positive feeds to both the open and close coils of the valve motor contactor and their mutual negative return will be opened or closed by the key switch. By providing a separate cable from the motor control center to the key switch and isolating all sources of control power to the valve actuator, this modification would require a highly improbable combination of two or more faults to occur to cause spurious operation of the valve. A single failure would not cause the valve to close.

Provisions for use of key operated switches which remove DC control power have been applied to other safety related valves at R. E. Ginna. MOV-896A and B, the RWST outlet valves to High Head Safety

Injection pumps and Containment Spray pumps have the same functional requirements as MOV-856.

An open circuit, or a short which would cause the control fuses to blow, would cause the valve to fail as is. Manipulation of the valve in this case would require manual operation of the valve, which exists in the present configuration.

A loss of power to the valve motor could be a single failure assumed to occur concurrently with or following a LOCA. These effects would not be increased by the proposed modification. The power sources to the valve are not being changed. The key operated switch produces a negligible increase in the possibility of a failure to operate the control circuit.

A loss of power to the valve or the Class 1E DC Vital Battery "A" would cause MOV-856 to fail as is. Thus, the emergency core cooling function provided by the RHR pumps throughout the injection phase would not be affected. If a sustained power failure occurred when it became necessary to isolate the RWST from the containment sump "B", MOV-856 would have to be manually closed with the valve handwheel before the RHR pumps could be restarted. This would require an entry into the auxiliary building. This requirement exists under the present configuration.

The capability of the proposed configuration to withstand the effects of a seismic or fire event is not decreased, because the key switch installation will be qualified to meet the standards set forth by IEEE Std. 383-1974, Vertical Flame Test Requirements. Additional circuitry will not be installed in any plant areas which do not already contain MOV-856 power and control circuitry. Therefore, 10CFR50 Appendix R analyses will remain unchanged.

The proposed change does not involve a significant change in the probability or consequences of an accident previously evaluated, because the proposed modification does not degrade the capability of any safety system to perform its function. The open position of valve MOV-856 is assured through the key lock switch arrangement. Emergency core cooling functions during the injection phase of a LOCA would be unaffected since the valve is designed to fail as is (OPEN position). Prior to initiation of the recirculation phase of a LOCA, the proposed modification will allow operation of the valve from the control room to isolate the RWST. Therefore, a decrease in the radiological risk to personnel is achieved through elimination of a mandatory entry into a radiologically controlled area to unlock and close the breaker for the valve. This mandatory entry would also be eliminated when isolating the RWST from the reactor coolant system prior to placing the residual heat removal system into operation for plant cooldown.

The proposed change does not create the possibility of a new or different accident from any previously evaluated, because the proposed modification involves a change to the method of locking open the motor operated valve. No new safety functions will be provided and no new failure modes were identified.

The proposed change does not involve a significant reduction in the margin of safety, because the safety function of the valve to be maintained in the OPEN position will continue to be achieved and be required by a Technical Specification. The proposed change will add control of the valve from the control room to achieve the CLOSE safety function to isolate the RWST. Hence, plant operability will be increased.

Therefore, Rochester Gas and Electric submits that the issues associated with this Amendment request are outside the criteria of 10CFR50.91 and a no significant hazards finding is warranted.

Table 1

DETAILED TECHNICAL SPECIFICATIONS CHANGES

Location	Description of Change	Reason for Change
Page 3.3-2 para. 3.3.1.1.g	In the first sentence deleted "and refueling water storage tank delivery valve 856." In the third sentence delete "and B" and add "896B and 856"	Modify the method of locking valve 856 open from removal of A.C. power to removal of D.C. control power in order to enable valve manipulation from the control room while maintaining the locked OPEN requirement.

